

## WHAT IS CLAIMED IS:

1. An aqueous solution of calcitonin suitable for intranasal administration consisting  
5 essentially of calcitonin, chlorobutanol at a concentration of 0.25% weight/weight, and  
water and having a pH of about 3.5, sodium chloride at a concentration of about 0.85%,  
and optionally hydrochloric acid in an amount sufficient to adjust the pH of the solution  
to about 3.5, and wherein the aqueous solution has an oxygen at a content of less than  
about 5%.  
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2. The aqueous solution of claim 1 wherein the calcitonin is present at a concentration of  
about 0.0355 weight/weight.
3. A method for intranasal administration of calcitonin which comprises administering  
15 intranasally to an individual a solution of calcitonin consisting essentially of calcitonin,  
chlorobutanol at a concentration of 0.25% weight/weight, and water and having a pH of  
about 3.5, sodium chloride at a concentration of about 0.85%, and optionally  
hydrochloric acid in an amount sufficient to adjust the pH of the solution to about 3.5,  
and wherein the aqueous solution has an oxygen at a content of less than about 5%.  
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4. The method of claim 3 wherein the calcitonin is present in solution at a concentration  
of about 0.0355 weight/weight.
5. The method of claim 3 wherein the calcitonin formulation is administered into a nose  
25 of an individual through an actuator tip as a spray, wherein the spray has a spray pattern  
ellipticity ratio of from about 1.0 to about 1.4 when measured at a height of 3.0 cm from  
the actuator tip.
6. The method of claim 5 wherein the spray produces droplets, wherein less than 5% of  
30 the droplets are less than 10 microns in size.
7. The method of claim 5 wherein the spray has a spray pattern major axis of about 31.2  
mm and a minor axis of about 27.4 mm.

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